Inner Provenance Layer (IPL) — Version 1.2

Definition

The Inner Provenance Layer (IPL) is a sealed, non-public provenance stratum that contains a single micro-inscription embedded exclusively within the Private Provenance File of the relic. *(ISO 704/1087-compliant core definition)*

Terminology Development Notice
The definition of the Inner Provenance Layer follows the principles of ISO 704 and ISO 1087. The conceptual definition may be refined within the Living Provenance methodology without affecting the archived IPL content or its fixity.

Definition, Function, and Archival Role within the Living Provenance System

The Inner Provenance Layer (IPL) is a sealed, non-public provenance stratum within the Light and Relic system. It contains a single, extremely small micro-inscription, visible only under extreme magnification and present exclusively within the Private Provenance File of the relic.

The IPL is not an artwork, not a design element, and not a visible part of any public image. It is the inner, subjective witness layer of the moment in which the relic came into being as a relic.

This page defines the IPL and documents its position and archival role within the Living Provenance methodology.

1. Nature and Purpose of the Inner Provenance Layer

The IPL is a sealed provenance component that is not published, not visible, not extractable, only verifiable through archival procedures, and validated solely through cryptographic integrity.

The micro-inscription preserves an intimate artistic fragment from the genesis moment of the relic — a subjective layer that stands in conceptual tension to the forensic precision of the system, and thus becomes essential.

Its purpose is not visibility or interaction, but a sealed internal witness statement embedded in the archival state of the file.

2. Position within the Living Provenance System

Within the Living Provenance model, the IPL belongs to the overarching process and methodological layer and resides within the digital provenance category.

Inside this structure, the IPL exists alongside FES signatures, OTS timestamps, and PAR2 redundancy, yet differs fundamentally from them: these are protocols that secure digital integrity, whereas the IPL is a content-bearing fragment — a deliberately sealed anchor of meaning.

It is also clearly distinct from the Surface Identity Method, which produces objective, measurable micro-structural vector data.

The IPL instead stores qualitative, subjective meaning.

3. Why the IPL Remains Invisible

The IPL is not shown in any public files because its significance emerges from its concealment.
It acts through its existence, not through its content.
Its integrity is verifiable only through file-hash equivalence.

The methodology of Light and Relic requires a separation between forensic disclosure and ritual sealing.

For this reason, the IPL exists solely inside the Private Provenance File, secured through FES, anchored with OTS, protected with PAR2, and preserved on M-Disc.

It becomes a conceptual relic inside the digital relic.

The IPL is preserved permanently as part of the Private Provenance File and is never modified after creation.

Archival Fixity Clarification
The fixity required by ISO 23081 applies solely to the archived IPL content within the Private Provenance File, which remains permanently unaltered. The conceptual structure, function, and theoretical development of the Inner Provenance Layer remain unaffected by this archival constraint.

4. Technical Foundations of Verification

Even though its content remains hidden, the existence of the IPL is fully verifiable:

- **FES (Forensic Electronic Signature)**
  Verifies authorship and file identity.

- **OTS (OpenTimestamps on Bitcoin)**
  Anchors the file chronologically and immutably.

- **PAR2 (Parity Recovery)**
  Protects the IPL against data degradation.

- **M-Disc Archival Storage**
  Ensures long-term physical preservation.

The IPL therefore functions as an archival sealed witness whose state is cryptographically provable.

5. Distinction from Other Provenance Layers

The IPL is not to be confused with:

- **Surface Identity Method (SIM)**
  Records objective macro- and microstructures as a vector dataset.
- **Material Provenance**
  Refers to editions, prints, and physical manifestations.
- **Visual Provenance**
  Documents photography, lighting, and the creation environment.

The IPL is unlike any of these.
It is an internal, qualitative anchor, not a visual, material, or measurable element.

6. Archival Role

The IPL acts as an inner layer of meaning, a conceptual core signature of the genesis moment, and a sealed complement to the open provenance layers.

This fulfills the artistic principle:
Not every truth must be visible — but every truth must be verifiable.

7. DOI, Reference, and Canonical Links

- **Zenodo DOI (Version 1.1)**
  https://doi.org/10.5281/zenodo.17634981
- **Master DOI**
  https://doi.org/10.5281/zenodo.17560497
- **ORCID**
  https://orcid.org/0009-0009-2305-4152

The IPL is part of the official Living Provenance canon of the Light and Relic project.

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The Private Provenance File must not be published or disclosed.
The existence of the IPL may be cited; its content remains sealed.

Standards Compliance Notice

This definition follows ISO 704 and ISO 1087 (terminology principles).
The archival structure and fixity requirements follow ISO 23081 (metadata for provenance and records).